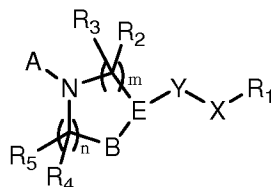


## Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

## Listing of claims:

1. (Currently Amended) A compound of Formula I:



in which:

$n$  is chosen from 0, ~~and 1 and 2~~;  $m$  is chosen from 1, ~~and 2 and 3~~;

$R_1$  is chosen from  $C_{6-10}$ aryl and  $C_{5-10}$ heteroaryl; wherein any aryl or heteroaryl of  $R_1$  is optionally substituted by a radical chosen from  $C_{6-10}$ aryl $C_{0-4}$ alkyl,  $C_{5-6}$ heteroaryl $C_{0-4}$ alkyl,  $C_{3-8}$ cycloalkyl $C_{0-4}$ alkyl,  $C_{3-8}$ heterocycloalkyl $C_{0-4}$ alkyl or  $C_{1-10}$ alkyl; wherein any aryl, heteroaryl, cycloalkyl or heterocycloalkyl group of  $R_1$  can be optionally substituted by 1 to 5 radicals chosen from halo,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted- $C_{1-10}$ alkyl and halo-substituted- $C_{1-10}$ alkoxy; and any alkyl group of  $R_1$  can optionally have a methylene replaced by an atom or group chosen from  $-S-$ ,  $-S(O)-$ ,  $-S(O)_2-$ ,  $-NR_7-$  and  $-O-$ ; wherein  $R_7$  is chosen from hydrogen and  $C_{1-6}$ alkyl;

$R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are independently chosen from hydrogen, halo, hydroxy,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted- $C_{1-10}$ alkyl and halo-substituted- $C_{1-10}$ alkoxy;

$A$  is chosen from  $-X_1C(O)OR_7$ ,  $-X_1OP(O)(OR_7)_2$ ,  $-X_1P(O)(OR_7)_2$ ,  $-X_1P(O)OR_7$ ,  $-X_1S(O)_2OR_7$ , ~~and~~  $-X_1P(O)(R_7)OR_7$  ~~and 1H-tetrazol-5-yl~~; wherein  $X_1$  is chosen from ~~a bond~~,  $C_{1-3}$ alkylene and  $C_{2-3}$ alkenylene and  $R_7$  is chosen from hydrogen and  $C_{1-6}$ alkyl;

$B$  is  $CR_8R_9$ ; wherein  $R_8$  and  $R_9$  are independently chosen from hydrogen, hydroxy,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted- $C_{1-10}$ alkyl and halo-substituted- $C_{1-10}$ alkoxy;

$E$  is chosen from  $CR_8$  or  $N$ ; wherein  $R_8$  is chosen from hydrogen, hydroxy,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted- $C_{1-10}$ alkyl and halo-substituted- $C_{1-10}$ alkoxy; or  $B$  is  $CR_9$  and  $E$  is carbon and  $B$  and  $E$  are connected via a double bond;

$X$  is a bond or is chosen from  ~~$-CH_2O-$ ,  $-OCH_2-$ ,  $-CH_2S-$ ,  $-X_4OX_2-$ ,  $-X_4NR_7X_2-$ ,  $-X_4C(O)NR_7X_2-$ ,  $-X_4NR_7C(O)X_2-$ ,  $-X_4S(O)X_2-$ ,  $-X_4S(O)_2X_2-$ ,  $-X_4SX_2-$ , and  $C_{4-6}$ heteroarylene~~

and  $-X_1ON=C(R_7)X_2-$ ; wherein  $X_1$  and  $X_2$  are independently chosen from a bond,  $C_{1-3}$ alkylene and  $C_{2-3}$ alkenylene;  $R_7$  is chosen from hydrogen and  $C_{1-6}$ alkyl; and any heteroarylene of  $X$  is optionally substituted by a member of the group chosen from halo and  $C_{1-6}$ alkyl;

$Y$  is chosen from  $C_{6-10}$ aryl and  $C_{5-10}$ heteroaryl, wherein any aryl or heteroaryl of  $Y$  can be optionally substituted with 1 to 3 radicals chosen from halo, hydroxy, nitro,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted  $C_{1-10}$ alkyl and halo-substituted  $C_{1-10}$ alkoxy; and the pharmaceutically acceptable salts, hydrates, solvates, isomers and prodrugs thereof.

2. (Original) The compound of claim 1 in which  $R_1$  is chosen from phenyl, naphthyl and thiophenyl optionally substituted by  $C_{6-10}$ aryl $C_{0-4}$ alkyl,  $C_{5-6}$ heteroaryl $C_{0-4}$ alkyl,  $C_{3-8}$ cycloalkyl $C_{0-4}$ alkyl,  $C_{3-8}$ heterocycloalkyl $C_{0-4}$ alkyl or  $C_{1-10}$ alkyl; wherein any aryl, heteroaryl, cycloalkyl or heterocycloalkyl group of  $R_1$  can be optionally substituted by 1 to 5 radicals chosen from halo,  $C_{1-10}$ alkyl,  $C_{1-10}$ alkoxy, halo-substituted- $C_{1-10}$ alkyl and halo-substituted- $C_{1-10}$ alkoxy; and any alkyl group of  $R_1$  can optionally have a methylene replaced by an atom or group chosen from  $-S-$ ,  $-S(O)-$ ,  $-S(O)_2-$ ,  $-NR_7-$  and  $-O-$ ; wherein  $R_7$  is hydrogen or  $C_{1-6}$ alkyl.

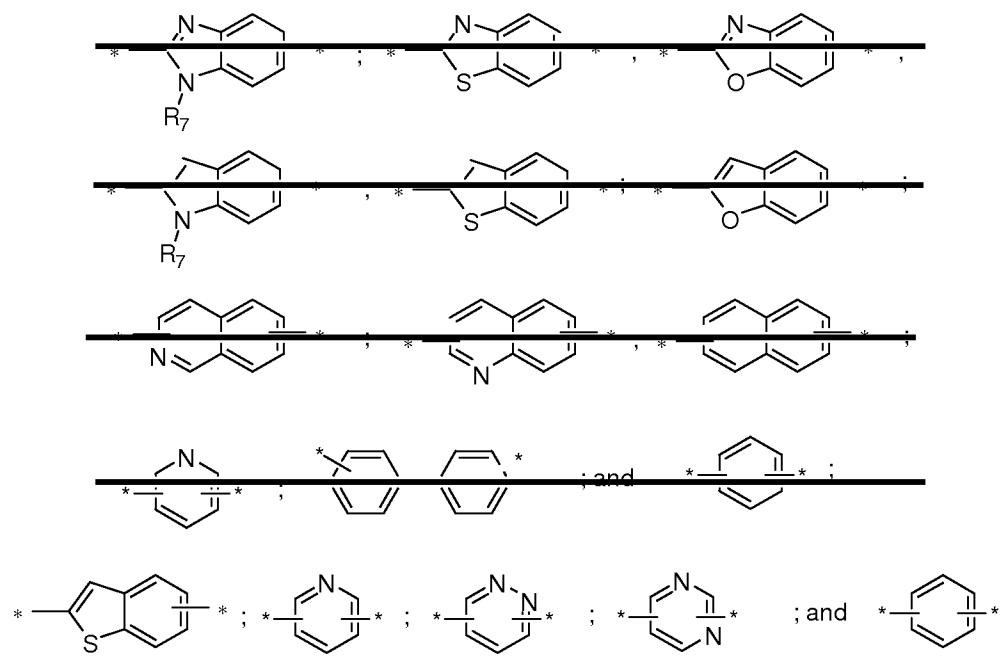
3. (Currently Amended) The compound of claim 1 in which  $A$  is chosen from  $-X_1C(O)OR_7$  and 1H-tetrazol-5-yl; wherein  $X_1$  is chosen from a bond,  $C_{1-3}$ alkylene and  $C_{2-3}$ alkenylene and  $R_7$  is chosen from hydrogen and  $C_{1-6}$ alkyl.

4. (Canceled) The compound of claim 1 in which  $X$  is chosen from:



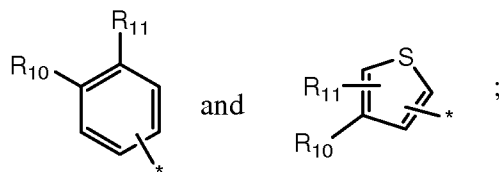
2 or 3.

5. (Currently Amended) The compound of claim 13 in which Y is chosen from:



wherein R<sub>7</sub> is hydrogen or C<sub>1-6</sub>alkyl; and the left and right asterisks of Y indicate the point of attachment between X and E of Formula I, respectively.

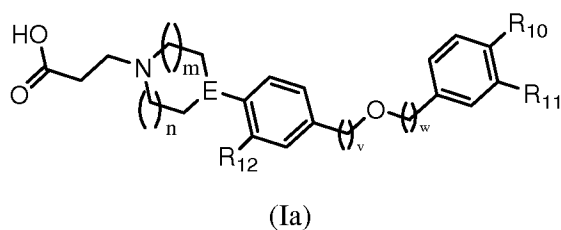
6. (Original) The compound of claim 2 in which R<sub>1</sub> is chosen from:



wherein the asterisk is the point of attachment of R<sub>1</sub> with X; R<sub>10</sub> is C<sub>6-10</sub>arylC<sub>0-4</sub>alkyl, C<sub>5-6</sub>heteroarylC<sub>0-4</sub>alkyl, C<sub>3-8</sub>cycloalkylC<sub>0-4</sub>alkyl, C<sub>3-8</sub>heterocycloalkylC<sub>0-4</sub>alkyl or C<sub>1-10</sub>alkyl; wherein any aryl, heteroaryl, cycloalkyl or heterocycloalkyl group of R<sub>10</sub> can be optionally substituted by 1 to 3 radicals chosen from halo, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy, halo-substituted-C<sub>1-10</sub>alkyl and halo-substituted-C<sub>1-10</sub>alkoxy; and any alkyl group of R<sub>10</sub> can optionally have a methylene replaced by an atom or group chosen from -S-, -S(O)-, -S(O)<sub>2</sub>-, -NR<sub>7</sub>- and -O-; wherein R<sub>7</sub> is hydrogen or C<sub>1-6</sub>alkyl; and R<sub>11</sub> is selected from halo, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy, halo-substituted-C<sub>1-10</sub>alkyl and halo-substituted-C<sub>1-10</sub>alkoxy.

7. (Currently Amended) The compound of claim 2 1 selected from: 3-{4-[6-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-pyridin-3-yl]-piperazin-1-yl}-propionic acid; 3-{4-[6-(4-Cyclohexyl-3-trifluoromethyl-phenoxy)-pyridin-3-yl]-piperazin-1-yl}-propionic acid; 3-{4-[6-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-pyridazin-3-yl]-piperazin-1-yl}-propionic acid; 3-{4-[2-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-pyrimidin-5-yl]-piperazin-1-yl}-propionic acid; 3-{4-Hydroxy-4-[2-(2-trifluoromethyl-biphenyl-4-yl)-benzo[b]thiophen-5-yl]-piperidin-1-yl}-propionic acid; 3-{4-[2-(2-Trifluoromethyl-biphenyl-4-yl)-benzo[b]thiophen-5-yl]-3,6-dihydro-2H-pyridin-1-yl}-propionic acid; 3-(3-{4-[3-(2-Trifluoromethyl-biphenyl-4-yl)-[1,2,4]oxadiazol-5-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(3-{3-[5-(4-Cyclohexyl-3-trifluoromethyl-phenyl)-[1,3,4]oxadiazol-2-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(3-{3-[5-(2-Trifluoromethyl-biphenyl-4-yl)-[1,3,4]oxadiazol-2-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(3-{4-[3-(4-Cyclohexyl-3-trifluoromethyl-phenyl)-[1,2,4]oxadiazol-5-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(4-{4-[5-(4-Cyclohexyl-3-trifluoromethyl-phenyl)-[1,3,4]oxadiazol-2-yl]-phenyl}-piperidin-1-yl)-propionic acid; 3-(3-{4-[5-(4-Cyclohexyl-3-trifluoromethyl-phenyl)-[1,3,4]oxadiazol-2-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(3-{4-[5-(2-Trifluoromethyl-biphenyl-4-yl)-[1,3,4]oxadiazol-2-yl]-phenyl}-pyrrolidin-1-yl)-propionic acid; 3-(4-{4-[5-(2-Trifluoromethyl-biphenyl-4-yl)-[1,3,4]oxadiazol-2-yl]-phenyl}-piperidin-1-yl)-propionic acid; 3-(3-{4-[5-(4-Cyclohexyl-3-trifluoromethyl-phenyl)-[1,3,4]oxadiazol-2-yl]-phenyl}-azetidin-1-yl)-propionic acid; 3-(3-{4-[5-(2-Trifluoromethyl-biphenyl-4-yl)-[1,3,4]oxadiazol-2-yl]-phenyl}-azetidin-1-yl)-propionic acid; 3-(4-{4-[5-(3-Trifluoromethyl-phenyl)-[1,3,4]oxadiazol-2-yl]-phenyl}-piperidin-1-yl)-propionic acid; 3-{4-[6-(2-Trifluoromethyl-biphenyl-4-yloxy)-pyridin-3-yl]-piperazin-1-yl}-propionic acid; and 3-{4-[4-(2-Trifluoromethyl-biphenyl-4-ylsulfanylmethyl)-phenyl]-piperidin-1-yl}-propionic acid.

8. (Original) The compound of claim 2 of Formula Ia:



in which:

E is selected from N and CH;

m and n are independently selected from 0 and 1;

v and w are independently selected from 0 and 1;

R<sub>10</sub> is selected from cyclohexyl, piperidiny, tetrahydro-thiopyran-4-yl, phenyl, phenoxy and phenylsulfanyl; wherein any cyclohexyl, piperidiny, tetrahydro-thiopyran-4-yl, phenyl, phenoxy and phenylsulfanyl of R<sub>10</sub> can be optionally substituted by 1 to 3 radicals independently selected from methyl and isopropyl;

R<sub>11</sub> is selected from methyl, trifluoromethyl and ethyl; and

R<sub>12</sub> is selected from hydrogen, ethyl and methoxy.

9. (Currently Amended) The compound of claim 8 selected from: 3-{4-[4-(4-Cyclohexyl-3-methyl-phenoxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Piperidin-1-yl-3-trifluoromethyl-phenoxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-(4-{4-[3-Methyl-4-(tetrahydro-thiopyran-4-yl)-phenoxy)methyl]-phenyl}-piperidin-1-yl)-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-2-ethyl-phenyl]-piperazin-1-yl}-propionic acid; 3-{4-[4-(2-Methyl-biphenyl-4-yloxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(2-Trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-trifluoromethyl-phenoxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(3'-Methyl-2-trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{3-[4-(4-Cyclohexyl-3-trifluoromethyl-phenoxy)methyl]-phenyl]-pyrrolidin-1-yl}-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-ethyl-phenoxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{3-[4-(2-Trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl]-pyrrolidin-1-yl}-propionic acid; 3-(4-{4-[4-(3,6-Dihydro-2H-thiopyran-4-yl)-3-trifluoromethyl-phenoxy)methyl]-phenyl}-piperidin-1-yl)-propionic acid; 3-{3-[4-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-phenyl]-azetidin-1-yl}-propionic acid; 3-{3-[4-(2-Trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl]-azetidin-1-yl}-propionic acid; 3-{4-[2-Ethyl-4-(2-trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl]-piperidin-1-yl}-propionic acid; 3-{3-[4-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-phenyl]-pyrrolidin-1-yl}-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-trifluoromethyl-benzyloxy)-2-ethyl-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4'-Methyl-2-trifluoromethyl-biphenyl-4-yloxy)methyl]-phenyl}-

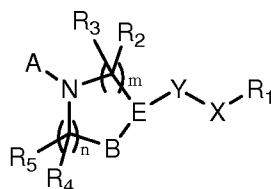
piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Phenoxy-3-trifluoromethyl-phenoxy-methyl)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Cyclohexyl-3-trifluoromethyl-phenoxy-methyl)-2-methoxy-phenyl]-piperazin-1-yl}-propionic acid; 3-{4-[4-(2-Trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidin-1-yl}-propionic acid; 3-{3-[4-(2-Trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-pyrrolidin-1-yl}-propionic acid; 3-{3-[4-(2-Trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-azetidin-1-yl}-propionic acid; 3-{4-[4-(4-Isobutyl-3-trifluoromethyl-benzyloxy)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(4-Phenylsulfanyl-3-trifluoromethyl-phenoxy-methyl)-phenyl]-piperidin-1-yl}-propionic acid; 1-(1H-Tetrazol-5-ylmethyl)-4-[4-(2-trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidine; 1-[2-(1H-Tetrazol-5-yl)-ethyl]-4-[4-(2-trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidine; 3-{4-[4-(2,4'-Dimethyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(2,4'-Dimethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(2-Ethyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-propionic acid; 3-{4-[4-(2-Ethyl-3'-methyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-propionic acid; (2-{4-[4-(2-Trifluoromethyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-ethyl)-phosphonic acid; 2-{4-[4-(2-Trifluoromethyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-ethanesulfonic acid; and Phosphoric acid mono-(2-{4-[4-(2-trifluoromethyl-biphenyl-4-yloxymethyl)-phenyl]-piperidin-1-yl}-ethyl) ester.

10. (Original) A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 in combination with a pharmaceutically acceptable excipient.

11. (Currently Amended) A method for treating a disease in an animal in which alteration of EDG/S1P receptor mediated signal transduction can ~~prevent~~, inhibit or ameliorate the pathology and/or symptomology of the disease, which disease is selected from acute or chronic transplant rejection and multiple sclerosis, which method comprises administering to the animal a therapeutically effective amount of a compound of Claim 1.

12. (Currently Amended) A method for ~~preventing or treating disorders or diseases mediated by lymphocytes, for preventing or treating acute or chronic transplant rejection or T-cell mediated inflammatory or autoimmune diseases~~ multiple sclerosis, ~~for inhibiting or controlling deregulated angiogenesis, or for preventing or treating diseases mediated by a neo-angiogenesis~~

14. (Currently Amended) A process for preparing a compound of Formula I:



R<sub>1</sub> is chosen from C<sub>6-10</sub>aryl and C<sub>5-10</sub>heteroaryl; wherein any aryl or heteroaryl of R<sub>1</sub> can be optionally substituted by a radical chosen from C<sub>6-10</sub>arylC<sub>0-4</sub>alkyl, C<sub>5-6</sub>heteroarylC<sub>0-4</sub>alkyl, C<sub>3-8</sub>cycloalkylC<sub>0-4</sub>alkyl, C<sub>3-8</sub>heterocycloalkylC<sub>0-4</sub>alkyl or C<sub>1-10</sub>alkyl; wherein any aryl, heteroaryl, cycloalkyl or heterocycloalkyl group of R<sub>1</sub> can be optionally substituted by 1 to 5 radicals chosen from hydrogen, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy, halo-substituted-C<sub>1-10</sub>alkyl and halo-substituted-C<sub>1-10</sub>alkoxy; and wherein any alkyl group of R<sub>1</sub> can optionally have a methylene replaced by an atom or group chosen from -N(R<sub>7</sub>)-, -S(O)<sub>2</sub>-, -NR<sub>7</sub>- and -O-; wherein R<sub>7</sub> is chosen from hydrogen and C<sub>1-6</sub>alkyl;

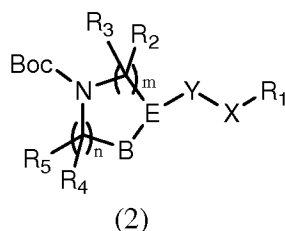
E is chosen from CR<sub>8</sub> or N; wherein R<sub>8</sub> is chosen from hydrogen, hydroxy, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy, halo-substituted-C<sub>1-10</sub>alkyl and halo-substituted-C<sub>1-10</sub>alkoxy; or B is CR<sub>9</sub> and E is carbon and B and E are connected via a double bond;



X is a bond or is chosen from  $-\text{CH}_2\text{O}-$ ,  $-\text{OCH}_2-$ ,  $-\text{CH}_2\text{S}-$ ,  $-\text{X}_1\text{OX}_2-$ ,  $-\text{X}_1\text{NR}_7\text{X}_2-$ ,  $-\text{X}_1\text{C}(\text{O})\text{NR}_7\text{X}_2-$ ,  $-\text{X}_1\text{NR}_7\text{C}(\text{O})\text{X}_2-$ ,  $-\text{X}_1\text{S}(\text{O})\text{X}_2-$ ,  $-\text{X}_1\text{S}(\text{O})_2\text{X}_2-$ ,  $-\text{X}_1\text{SX}_2-$ , and  $\text{C}_{4-6}$ heteroarylene and  $-\text{X}_1\text{ON}=\text{C}(\text{R}_7)\text{X}_2-$ ; wherein  $\text{X}_1$  and  $\text{X}_2$  are independently chosen from a bond,  $\text{C}_{1-3}$ alkylene and  $\text{C}_{2-3}$ alkenylene;  $\text{R}_7$  is chosen from hydrogen and  $\text{C}_{1-6}$ alkyl; and any heteroarylene of X is optionally substituted by a member of the group chosen from halo and  $\text{C}_{1-6}$ alkyl;

Y is chosen from  $\text{C}_{6-10}$ aryl and  $\text{C}_{5-10}$ heteroaryl, wherein any aryl or heteroaryl of Y can be optionally substituted with 1 to 3 radicals chosen from halo, hydroxy, nitro,  $\text{C}_{1-10}$ alkyl,  $\text{C}_{1-10}$ alkoxy, halo-substituted  $\text{C}_{1-10}$ alkyl and halo-substituted  $\text{C}_{1-10}$ alkoxy; which process comprises:

(a) reacting a compound of formula 2:



with either *t*-butyl acrylate, acrylonitrile/ $\text{NaN}_3$  or bromoacetonitrile/ $\text{NaN}_3$ ; wherein B, E, Y, X,  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ ,  $\text{R}_4$  and  $\text{R}_5$  are as described above; and

- (b) optionally converting a compound of the invention into a pharmaceutically acceptable salt;
- (c) optionally converting a salt form of a compound of the invention to a non-salt form;
- (d) optionally converting an unoxidized form of a compound of the invention into a pharmaceutically acceptable N-oxide;
- (e) optionally converting an N-oxide form of a compound of the invention to its unoxidized form;
- (f) optionally resolving an individual isomer of a compound of the invention from a mixture of isomers;
- (g) optionally converting a non-derivatized compound of the invention into a pharmaceutically acceptable prodrug derivative; and
- (h) optionally converting a prodrug derivative of a compound of the invention to its non-derivatized form.

Application No.: 10/590,618  
Inventors: Shifeng PAN, *et al.*  
Filing Date: 08/24/2006  
Response to Non-Final Office Action Notified 09/22/2008  
Date: 03/03/2009  
Page 11 of 15

15. (New) A compound selected from: 1-(1H-Tetrazol-5-ylmethyl)-4-[4-(2-trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidine; and 1-[2-(1H-Tetrazol-5-yl)-ethyl]-4-[4-(2-trifluoromethyl-biphenyl-4-ylmethoxy)-phenyl]-piperidine.